

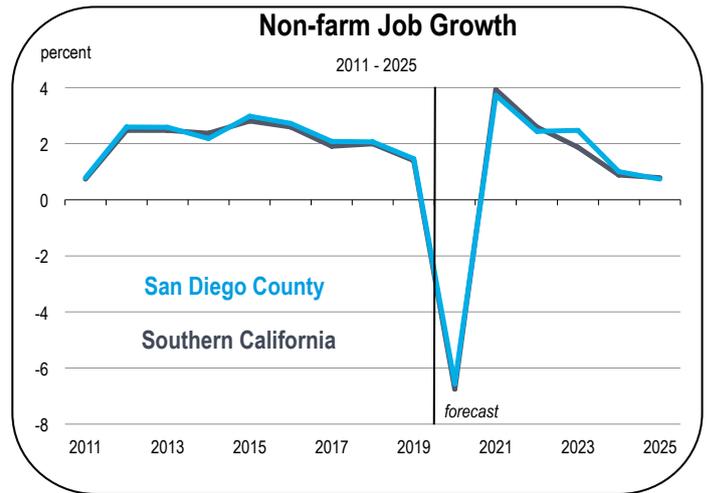
San Diego County Economic Forecast

Forecast Summary

- On an annual average basis, approximately 90,000 to 110,000 jobs will be lost in San Diego County during 2020, with heavy job losses in the first half of the year.
- Employment losses will be largest in retail trade, leisure services, professional business services, and government.
- The unemployment rate averaged 3.2 percent in 2019. It will average between 9 and 11 percent for the 2020 calendar year.
- The population is expanding at a similar rate as broader Southern California, and this trend will largely continue.
- Housing production will decline in 2020 but should rebound in 2021 and 2022.
- Home prices are not expected to change much during 2020 or 2021.

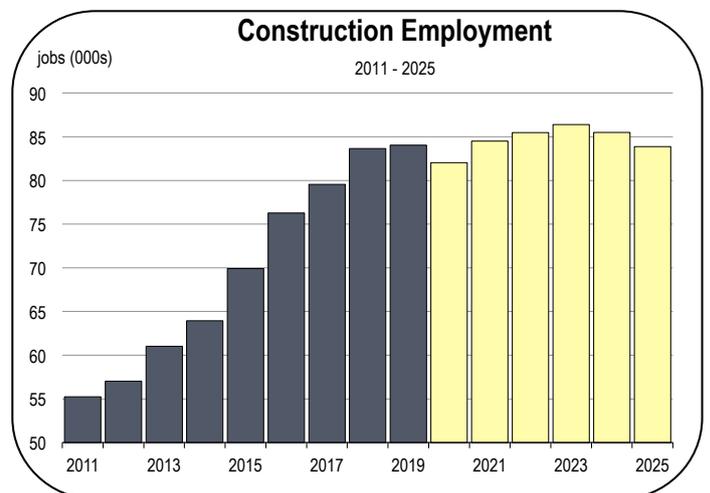
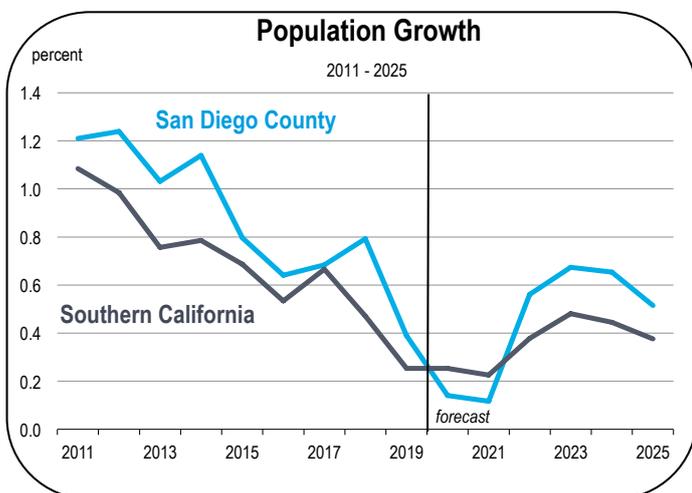
Job Growth

- Total employment in San Diego County will decline by 6 or 7 percent in 2020. This is an annual average change from 2019.
- In 2021, the county is expected to re-gain many of the jobs lost during the Coronavirus Recession.

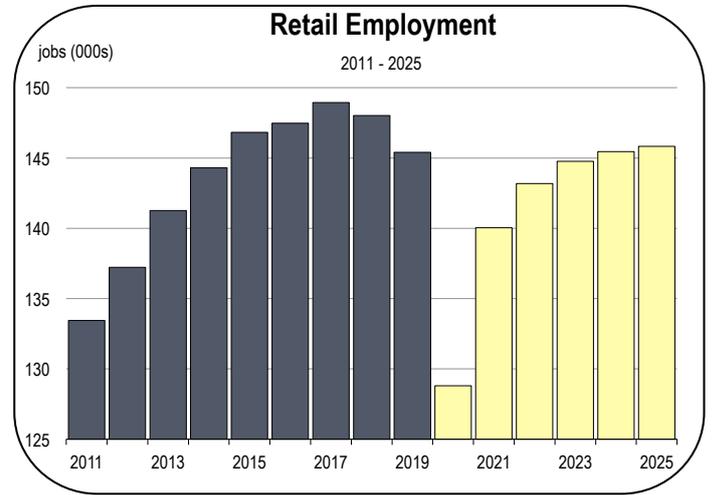
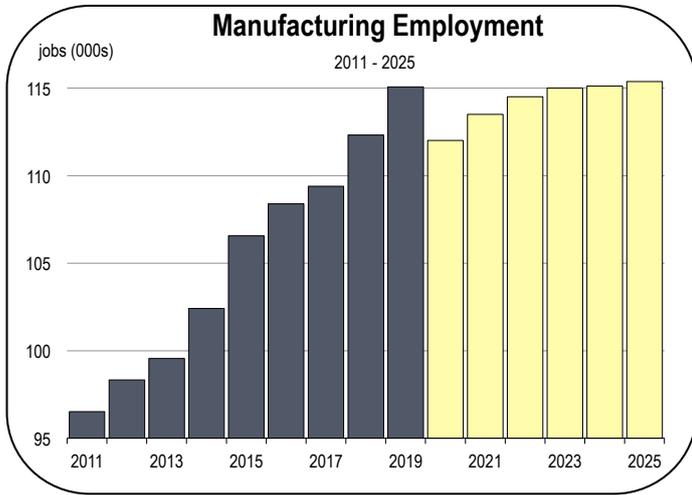


Construction Employment

- The construction sector is expected to lose 1,500 to 2,500 jobs in 2020.
- Most California construction activity was deemed non-essential for several weeks in March and April, leading to significant construction layoffs that average down total employment in 2020.
- Construction employment will expand in 2021 and may return to pre-recession levels relatively quickly.



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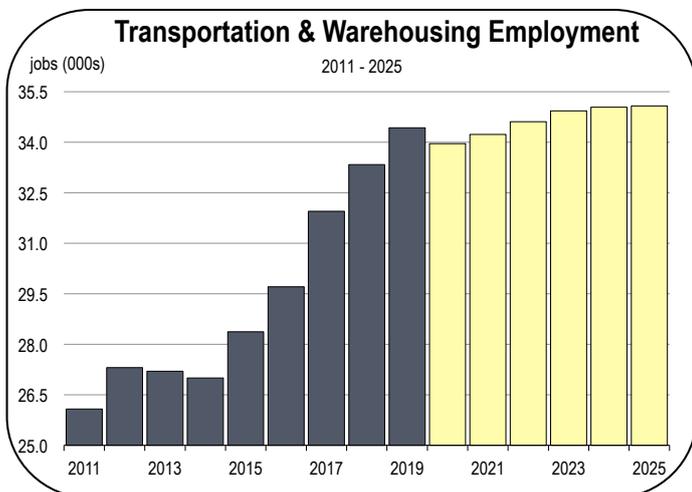


Manufacturing Employment

- Manufacturing employment is expected to fall by 2 or 3 percent during 2020, a decrease of approximately 2,500 to 3,500 jobs.
- Manufacturing activity is forecast to rebound slowly and may not return to pre-recession employment levels for several years.

Transportation and Warehousing Employment

- Most transportation jobs in San Diego County are in trucking and warehousing, bus and transit systems, local delivery services, and at San Diego International Airport.



- Job growth in trucking and warehousing was exponential before the Coronavirus Recession, with overall employment levels more than doubling between 2009 and 2019.
- Employment at local delivery firms like UPS, FedEx, and Instacart also increased substantially between 2009 and 2019. Local delivery is among the few corners of the labor market that could increase during the acute phase of the Coronavirus Recession.
- Overall transportation and warehousing employment declined in March and April but began to expand again in May during Phase 2 of California's restart.

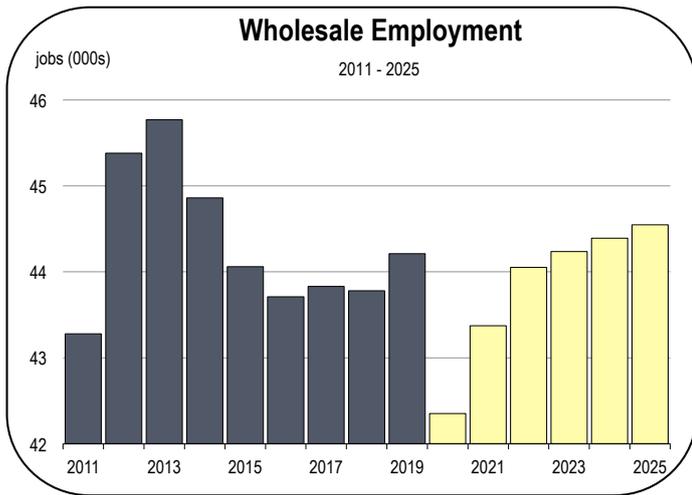
Retail Trade Employment

- The retail sector is expected to lose more than 15,000 jobs in 2020 on an annual average basis, a decrease of more than 10 percent.
- Many retail chains chose to furlough their employees rather than lay them off completely, and furloughed workers are not considered to be unemployed. This is a technical detail that will mask the true number of work stoppages in the retail sector.
- Accounting for furloughed workers, more than 20,000 retail workers could be effectively not working, and not earning an income, on an annual average basis in 2020.

Wholesale Trade Employment

- Wholesale trade employment is expected to fall by at least 1,000 jobs on an annual average basis in 2020.

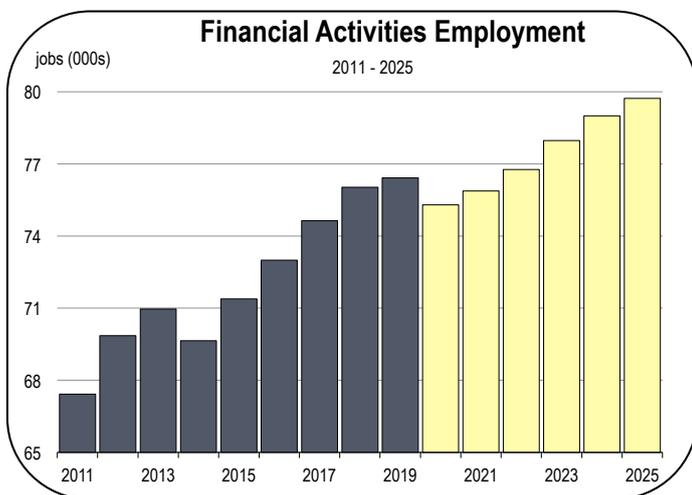
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- Wholesale employment should rebound sharply in 2021 but will not reach pre-recession levels for a few years.

Financial Activities Employment

- More than 1,000 lost jobs are expected in 2020 because many employers closed, committing their employees to shelter-in-place for health reasons.
- The most prominent losses are expected in real estate sales and lending.

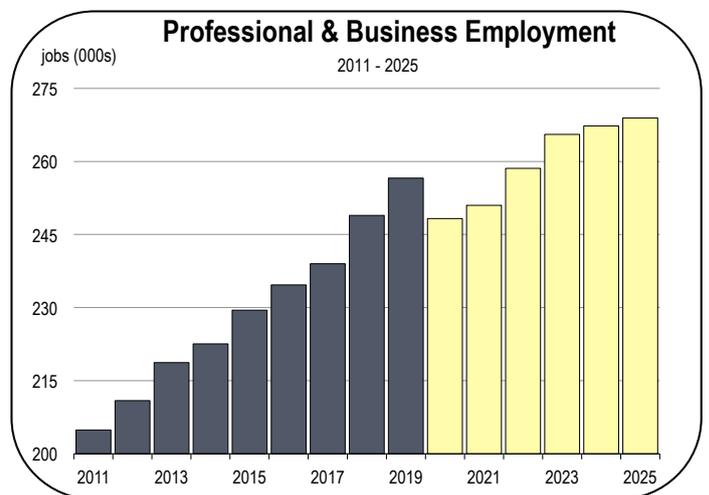


Financial Activities Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Real Estate	24.0	31.5%
Banks and Mortgage Lending	18.9	24.7%
Insurance	18.0	23.6%
Asset Management	9.3	12.2%
Rental and Leasing Services	6.2	8.1%

- There have been fewer homes on the market in 2020 than there were in 2019, and this should translate into fewer home sales, reducing the need for real estate agents and mortgage brokers.
- Banks also reduced their head counts in 2020 due to a temporary reduction of in-person branch visits.

Professional and Business Services Employment

- The professional and business services industry has a diverse array of subsectors, and each will be affected differently during the recession and recovery phases of 2020.
- One of the largest subsectors - staffing agencies - had significant losses during the contraction, but may bounce back quickly once the economy begins to expand again.



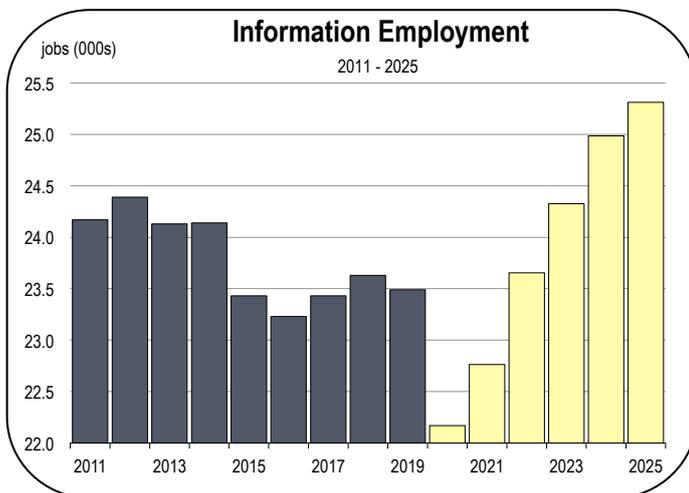
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Professional & Business Services Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Scientific Research	35.7	13.9%
Staffing Agencies	28.2	11.0%
Building Maintenance	27.8	10.8%
Custom IT Services	25.6	10.0%
Corporate Headquarters	24.3	9.5%
Engineering & Architecture	24.1	9.4%
Business Consulting	13.9	5.4%
Law	13.2	5.1%
Corporate Security	11.2	4.3%
Accounting & Bookkeeping	10.1	3.9%
Marketing and Advertising	4.1	1.6%
Other	38.4	14.9%

- Staffing agencies primarily employ temp workers. Temp workers are usually laid off first during a downturn but hired back first during a recovery.
- Corporate security and building maintenance jobs also declined substantially, but most workers in other subsectors were able to work from home and were less affected by the recession.

Information Employment

- In San Diego County, the information sector is dominated by telecommunications, software firms, and Internet/data services. Most of these jobs were classified as essential or were able to be performed remotely, but the information sector is still expected to lose thousands of jobs in 2020.

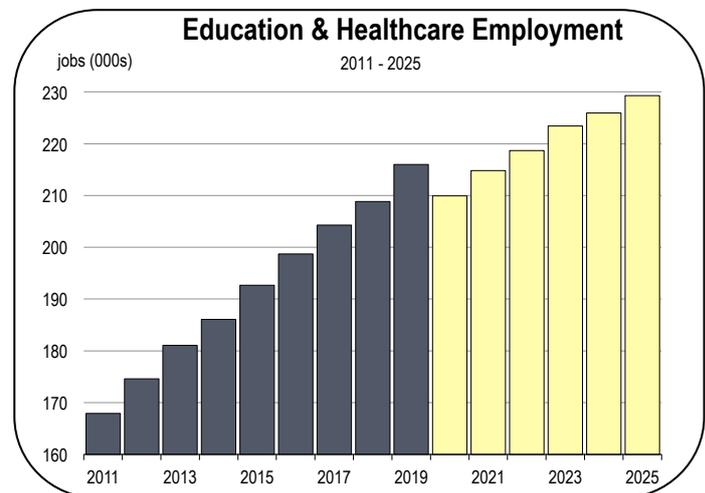


Information Sub-Sectors 2019	Jobs in Subsector	Subsector's Share of Overall Industry
Telecommunications	7,100	30.2%
Software Publishers	5,200	22.3%
Data & Internet Services	4,700	20.1%
Radio & TV Broadcasting	2,900	12.5%
Newspaper / Magazine / Book Publishing	1,800	7.6%
Movie Theaters	1,700	7.3%

- Many newspaper and magazine workers were allowed to remain in their jobs, but advertising revenues shrank with the rest of the economy, giving employers little choice but to issue layoff notices.
- Losses were heavy at movie theaters, and movie theater jobs could return much more slowly than the rest of the labor market because social distancing requirements could prevent movie theater customers from returning to normal levels quickly.
- Most growth over the 2020-2025 forecast period is expected in software publishers and data/Internet services.

Private Education and Healthcare Employment

- There were 136,000 healthcare jobs in San Diego County in 2019, representing more than half of all jobs in the broader private education and healthcare sector.
- Healthcare jobs were recession proof during the 2008-2009 financial crisis. However, some non-essential medical offices had to close in 2020, and hospitals reduced their employment levels



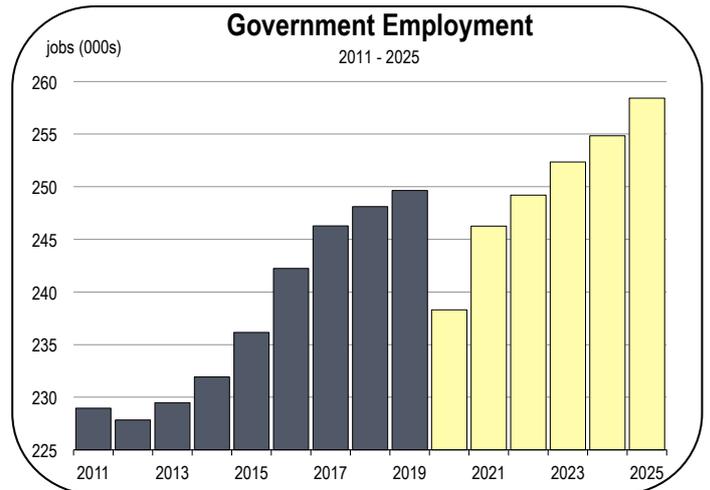
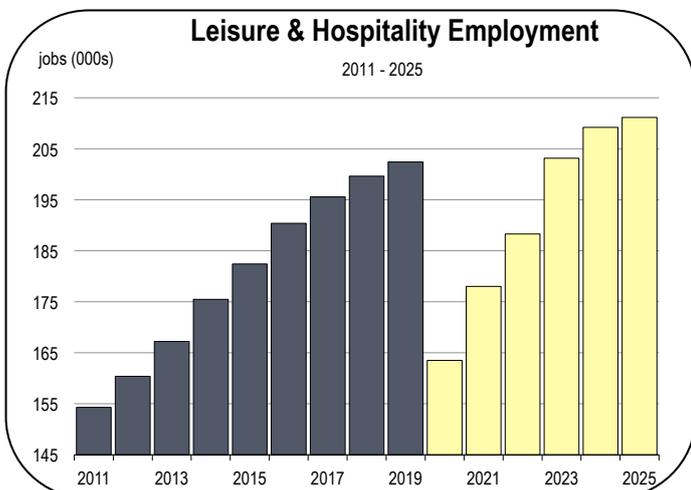
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because resources were not utilized as envisioned to support Coronavirus patients.

- There were approximately 55,000 social assistance jobs in 2019, including industries like childcare, housing shelters, and non-medical care for senior citizens.
- There were also 31,000 jobs in private schools and colleges, tutoring services, vocational schools, and other educational organizations.
- Jobs in social assistance and education were mostly classified as essential, but there were still layoffs at institutions with revenue shortfalls.

Leisure and Hospitality Employment

- Leisure and hospitality firms have been impacted by the lockdowns more than almost any other sector of the labor market.
- In 2019, San Diego County had 136,900 jobs in restaurants, hotels, and bars. Our research indicates that most were laid off, furloughed, or had their hours cut in the months of March and April.
- Jobs in this sector are not expected to reach pre-recession levels for several years.



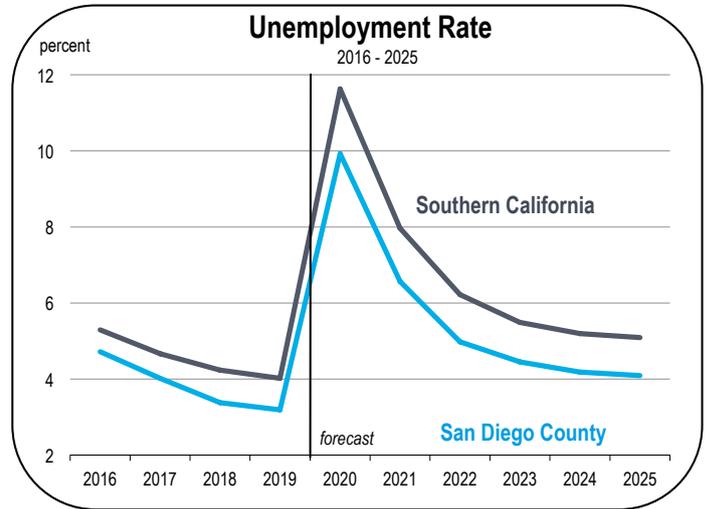
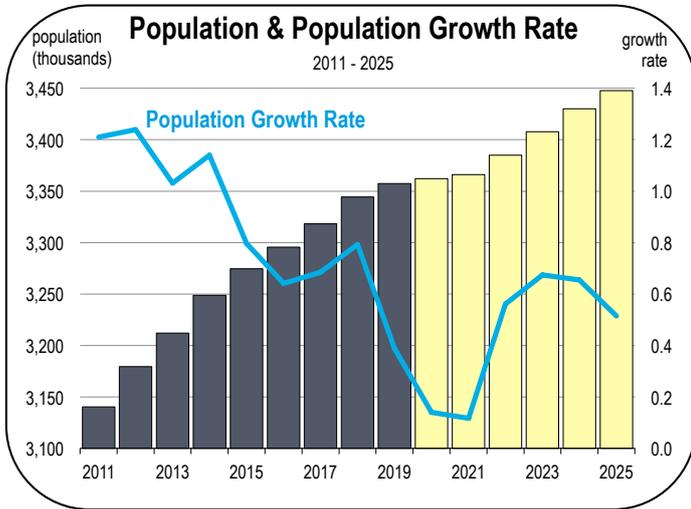
Government Employment

- Government agencies are expected to lose revenue from taxes and fees in 2020, and these revenue shortfalls will likely persist into 2021 and 2022.
- When government agencies need to reduce expenditures on salaries, many workers are expected to be given unpaid furlough days that are distributed throughout the year, and many staffing reductions could be the result of hiring freezes rather than layoffs.
- However, if revenue shortfalls are severe and Congress does not appropriate funding to mitigate these shortfalls, government agencies may have no choice but to issue layoffs.

Population Growth

- The San Diego County population is now growing slowly.
- An estimated 4,700 net migrants left the county in 2019, bringing the county's population growth rate well below the statewide average.
- Over the 2020-2025 forecast period, net migration will not contribute to population growth in any meaningful way, with positive net migration in some years and negative net migration in other years.

San Diego County Economic Forecast



- Population growth will average 0.4 percent per year during the 2020-2025 forecast period, and the county will approach 3.45 million residents by the year 2025.

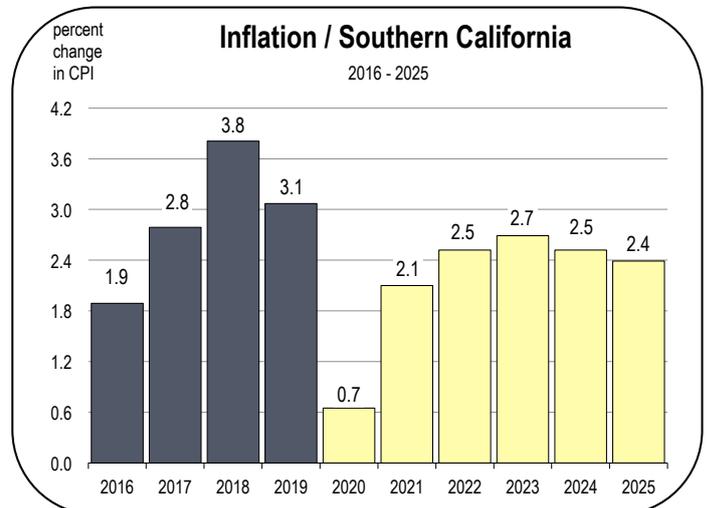
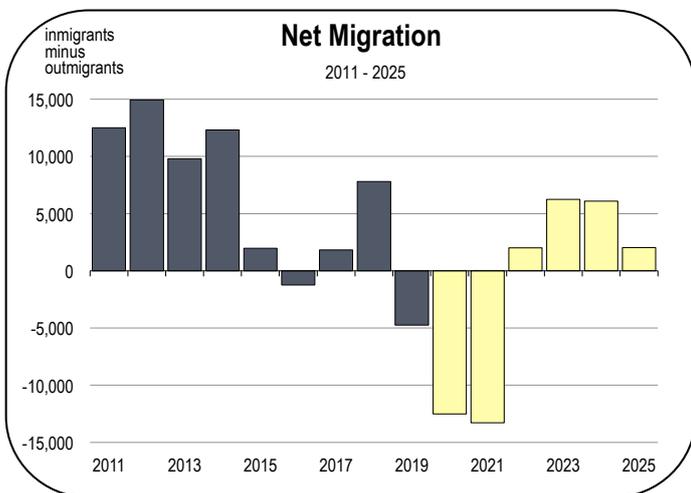
- Inflation decelerated in 2019 as energy prices declined and home prices increased more slowly than the previous year.
- Inflation is expected to be very low in 2020 but could accelerate in 2021 or 2022.

Unemployment and Inflation Rates

- The unemployment rate in San Diego County averaged 3.2 percent in 2019, which is below the composite rate for Southern California.
- The unemployment rate is expected to average between 9 and 11 percent in 2020.
- The unemployment rate is expected to remain elevated for several years, but is likely to improve more quickly than after the 2008-2009 recession.

Home Prices and New Housing Production

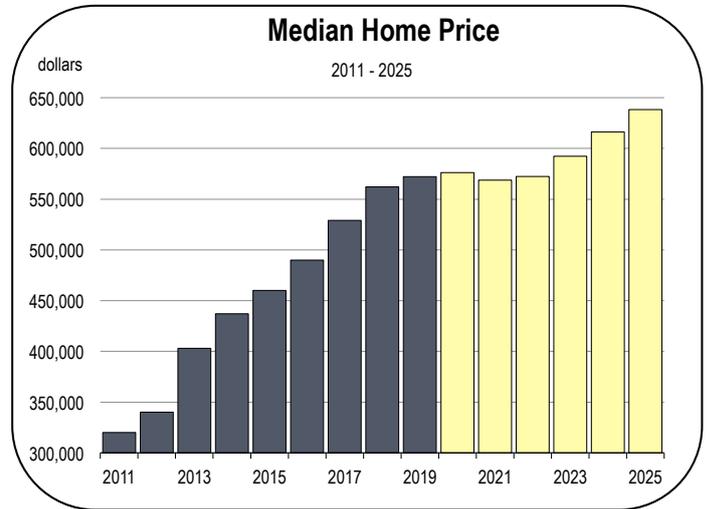
- The median home price was \$571,100 in 2019. Prices will not change much in 2020 or 2021.
- Housing affordability is becoming an issue in San Diego County because the supply of new units is not keeping pace with demand. Households frequently have to spend more than 35% of their



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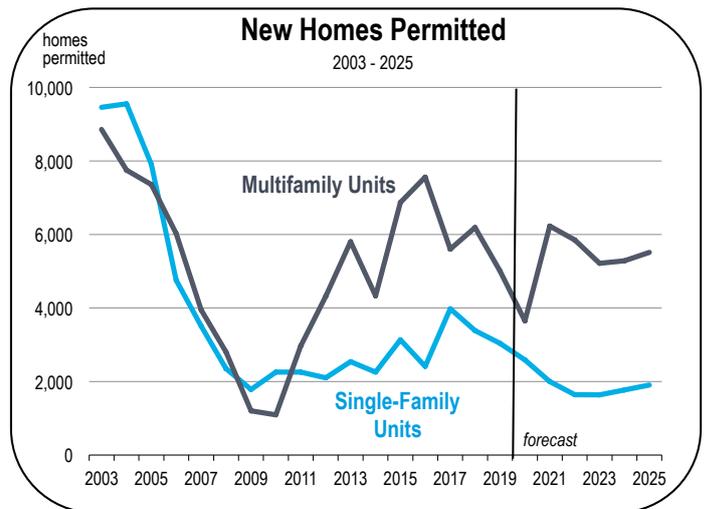
pre-tax income on mortgage payments, which exceeds the recommendations of some affordability guidelines.

- From 2014 to 2019, an average of 9,000 new homes were authorized per year. Multifamily units accounted for two thirds of all new units.
- Housing production will average 7,200 homes per year from 2020 to 2025. More than 70 percent will be multifamily units.
- The primary Chula Vista project is Otay Ranch, a master planned community on 23,000 acres. In addition to 12,000 new homes, it will contain 5 million square feet of commercial space.



San Diego County Residential Development Pipeline

Area	Units
Chula Vista	28,935
Downtown	10,585
San Marcos	5,917
Mission Valley	4,606
North County	2,962
Santee	2,949
Escondido	2,920
Valley Center	2,378
Fallbrook	1,878
Mira Mesa	1,800
San Diego	1,116
Carlsbad	460



San Diego County Economic Forecast

Economic Indicators

2015-2019 History, 2020-2050 Forecast

	Population (people)	House- holds (thousands)	Net Migration (people)	New Homes Permitted (homes)	Registered Vehicles (thousands)	Personal Income (billions)	Taxable Retail Sales (billions)	Total Taxable Sales (billions)	Real Industrial Production (billions)	Real per Capita Income (dollars)	Unemployment Rate (percent)	Real Farm Production (billions)	Inflation Rate (percent)
2015	3,274,586	1,112	1,971	10,005	2,881	\$180.0	\$37.9	\$54.7	\$25.3	\$61,583	5.2	\$1.9	0.9
2016	3,295,583	1,120	-1,248	9,972	2,960	\$186.4	\$38.4	\$55.9	\$25.7	\$62,215	4.7	\$1.9	1.9
2017	3,318,132	1,120	1,825	9,580	2,973	\$193.2	\$39.7	\$57.6	\$26.1	\$62,293	4.0	\$1.9	2.8
2018	3,344,438	1,125	7,798	9,577	2,993	\$205.2	\$41.2	\$59.0	\$26.9	\$63,247	3.4	\$1.8	3.8
2019	3,357,442	1,134	-4,749	8,053	3,046	\$217.8	\$41.9	\$60.5	\$28.0	\$64,862	3.2	\$1.8	3.1
2020	3,362,150	1,142	-12,510	6,233	3,055	\$213.8	\$38.9	\$56.5	\$28.6	\$63,169	9.9	\$1.8	0.7
2021	3,366,072	1,148	-13,283	8,229	3,058	\$221.3	\$41.6	\$59.7	\$28.3	\$63,971	6.6	\$1.8	2.1
2022	3,384,964	1,156	2,006	7,487	3,058	\$233.8	\$43.1	\$61.8	\$28.8	\$65,551	5.0	\$1.8	2.5
2023	3,407,768	1,163	6,244	6,849	3,056	\$248.5	\$45.0	\$64.5	\$29.2	\$67,400	4.4	\$1.8	2.7
2024	3,430,065	1,169	6,090	7,056	3,052	\$261.6	\$47.2	\$67.5	\$29.8	\$68,751	4.2	\$1.8	2.5
2025	3,447,733	1,176	2,030	7,422	3,048	\$275.0	\$49.5	\$70.7	\$30.4	\$70,232	4.1	\$1.8	2.4
2026	3,462,072	1,183	-773	7,385	3,044	\$287.9	\$51.8	\$73.8	\$31.1	\$71,558	3.9	\$1.8	2.3
2027	3,474,297	1,190	-2,229	7,573	3,041	\$300.9	\$54.2	\$77.2	\$31.7	\$72,894	3.7	\$1.8	2.2
2028	3,484,455	1,197	-3,733	7,980	3,040	\$314.6	\$56.7	\$80.7	\$32.3	\$74,307	3.7	\$1.8	2.3
2029	3,493,672	1,205	-4,195	8,067	3,041	\$328.3	\$58.6	\$83.4	\$32.8	\$75,543	3.7	\$1.8	2.4
2030	3,502,466	1,212	-4,158	7,943	3,045	\$341.7	\$60.3	\$85.8	\$33.3	\$76,697	3.7	\$1.8	2.3
2031	3,510,851	1,220	-4,134	7,808	3,052	\$355.2	\$62.0	\$88.1	\$33.7	\$77,839	3.6	\$1.8	2.2
2032	3,518,988	1,227	-4,182	7,725	3,062	\$369.0	\$63.8	\$90.7	\$34.1	\$78,826	3.7	\$1.8	2.4
2033	3,527,688	1,234	-3,455	7,519	3,073	\$382.3	\$65.5	\$93.0	\$34.6	\$79,886	3.7	\$1.8	2.0
2034	3,537,340	1,241	-2,168	7,241	3,085	\$396.5	\$67.3	\$95.5	\$35.0	\$80,872	3.6	\$1.8	2.2
2035	3,547,851	1,248	-1,075	6,969	3,095	\$411.3	\$69.1	\$98.2	\$35.4	\$81,799	3.6	\$1.8	2.3
2036	3,559,041	1,255	-346	6,817	3,107	\$427.4	\$71.4	\$101.4	\$35.7	\$82,530	3.7	\$1.8	2.7
2037	3,570,780	1,261	224	6,666	3,120	\$444.0	\$73.8	\$104.7	\$36.0	\$83,150	3.7	\$1.8	2.8
2038	3,582,282	1,268	129	6,528	3,136	\$460.4	\$76.1	\$108.0	\$36.3	\$83,808	3.7	\$1.8	2.6
2039	3,593,365	1,274	-346	6,437	3,153	\$477.9	\$78.7	\$111.6	\$36.5	\$84,395	3.7	\$1.8	2.8
2040	3,604,986	1,280	24	6,290	3,171	\$495.5	\$81.3	\$115.3	\$36.8	\$84,958	3.6	\$1.8	2.7
2041	3,616,512	1,286	-207	6,180	3,188	\$512.9	\$83.8	\$118.8	\$37.1	\$85,566	3.6	\$1.8	2.5
2042	3,627,484	1,292	-995	6,121	3,205	\$530.7	\$86.2	\$122.2	\$37.4	\$86,225	3.6	\$1.7	2.4
2043	3,637,474	1,298	-2,130	6,068	3,220	\$548.8	\$88.6	\$125.6	\$37.7	\$86,951	3.6	\$1.7	2.3
2044	3,647,681	1,303	-1,896	5,853	3,232	\$566.9	\$90.9	\$128.8	\$38.0	\$87,747	3.6	\$1.7	2.1
2045	3,658,310	1,309	-1,446	5,640	3,241	\$586.1	\$93.4	\$132.3	\$38.3	\$88,448	3.6	\$1.7	2.3
2046	3,669,137	1,314	-1,287	5,490	3,247	\$605.3	\$95.8	\$135.8	\$38.6	\$89,141	3.6	\$1.7	2.2
2047	3,680,341	1,319	-1,115	5,370	3,252	\$624.8	\$98.3	\$139.3	\$38.9	\$89,793	3.6	\$1.7	2.2
2048	3,692,010	1,325	-822	5,259	3,256	\$644.8	\$100.9	\$143.0	\$39.2	\$90,403	3.6	\$1.7	2.2
2049	3,704,252	1,330	-388	5,132	3,259	\$665.2	\$103.6	\$146.7	\$39.4	\$90,981	3.6	\$1.7	2.2
2050	3,716,928	1,334	120	4,999	3,262	\$686.0	\$106.3	\$150.5	\$39.7	\$91,521	3.6	\$1.7	2.2

Employment Sectors

2015-2019 History, 2020-2050 Forecast

	Total Wage & Salary	Farm	Construction	Manufac- turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
	(thousands of jobs)											
2015	1,394	9.1	69.9	106.6	28.4	190.9	71.4	229.5	23.4	192.7	182.4	236.2
2016	1,431	8.9	76.3	108.4	29.7	191.2	73.0	234.7	23.2	198.7	190.4	242.2
2017	1,461	8.7	79.5	109.4	32.0	192.8	74.6	239.0	23.4	204.3	195.6	246.3
2018	1,491	9.3	83.7	112.3	33.3	191.8	76.0	248.9	23.6	208.9	199.6	248.1
2019	1,513	9.6	84.0	115.1	34.4	189.6	76.4	256.6	23.5	216.0	202.4	249.6
2020	1,415	9.2	82.0	112.0	34.0	171.2	75.3	248.3	22.2	209.9	163.5	238.3
2021	1,467	9.4	84.5	113.5	34.2	183.4	75.9	251.0	22.8	214.8	178.0	246.3
2022	1,502	9.4	85.5	114.5	34.6	187.2	76.8	258.6	23.7	218.7	188.3	249.2
2023	1,539	9.3	86.4	115.0	34.9	189.0	78.0	265.5	24.3	223.4	203.2	252.3
2024	1,555	9.2	85.5	115.1	35.0	189.8	79.0	267.3	25.0	225.9	209.2	254.8
2025	1,566	9.2	83.9	115.4	35.1	190.4	79.7	268.9	25.3	229.3	211.2	258.4
2026	1,574	9.1	82.4	115.7	35.1	191.0	80.4	270.6	25.5	231.0	213.2	259.7
2027	1,582	9.0	81.4	115.9	35.2	191.7	81.4	272.4	25.8	232.7	214.8	260.9
2028	1,590	8.9	81.1	116.1	35.2	192.7	82.4	274.1	26.3	234.0	216.1	262.2
2029	1,599	8.8	81.0	116.3	35.2	193.4	83.4	275.9	26.7	235.6	217.1	263.5
2030	1,606	8.8	80.7	116.4	35.2	193.9	84.2	277.6	26.9	237.2	218.0	264.8
2031	1,614	8.7	80.4	116.5	35.2	194.8	85.1	279.4	27.1	238.8	219.1	266.0
2032	1,622	8.6	80.1	116.6	35.2	195.4	85.9	281.2	27.2	240.4	219.9	267.3
2033	1,629	8.5	79.6	116.7	35.2	196.0	86.8	283.0	27.3	242.0	220.6	268.6
2034	1,636	8.5	78.9	116.8	35.3	196.7	87.5	284.7	27.5	243.5	221.6	269.9
2035	1,644	8.4	78.1	116.9	35.3	197.2	88.2	286.6	27.5	245.1	222.7	271.3
2036	1,651	8.3	77.4	117.0	35.4	197.9	88.9	288.3	27.6	246.7	223.9	272.6
2037	1,658	8.2	76.6	117.1	35.4	198.3	89.6	290.2	27.8	248.4	225.1	273.9
2038	1,666	8.2	75.9	117.2	35.5	199.0	90.2	291.9	27.8	250.1	226.2	275.3
2039	1,673	8.1	75.2	117.3	35.5	199.7	91.0	293.8	28.0	251.8	227.2	276.6
2040	1,681	8.0	74.6	117.4	35.6	200.4	91.7	295.7	28.1	253.5	228.1	277.9
2041	1,688	7.9	73.9	117.5	35.6	200.8	92.4	297.5	28.4	255.2	229.1	279.3
2042	1,695	7.8	73.4	117.6	35.6	201.5	93.0	299.3	28.7	256.9	230.0	280.6
2043	1,703	7.8	72.9	117.6	35.7	202.2	93.6	301.1	28.9	258.7	231.0	281.9
2044	1,711	7.7	72.3	117.7	35.7	202.9	94.1	303.1	29.1	260.4	232.1	283.3
2045	1,719	7.6	71.7	117.8	35.8	203.6	94.6	305.0	29.5	262.1	233.0	284.6
2046	1,726	7.5	71.0	117.9	35.8	204.3	95.0	306.9	29.8	263.9	233.9	286.0
2047	1,733	7.4	70.3	118.0	35.9	205.0	95.4	308.7	30.1	265.7	234.8	287.4
2048	1,741	7.4	69.7	118.1	35.9	205.8	95.8	310.6	30.3	267.5	235.8	288.8
2049	1,748	7.3	69.1	118.1	36.0	206.5	96.2	312.6	30.5	269.3	236.7	290.1
2050	1,756	7.2	68.5	118.2	36.0	207.2	96.6	314.4	30.7	271.1	237.6	291.5

San Diego County Economic Forecast

Socioeconomic Indicators

